

Aconitum noveboracense A. Gray

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This rare species was originally discovered by A. Willard in Chenango county, New York, prior to 1857; it was again collected near Oxford, in the same county, by A. L. Coville and F. V. Coville in 1885 and 1887. It was later found by Mr. and Mrs. Van Brunt along the Beaverkill in Ulster County and again along the same river by Dr. H. H. Rusby in 1891. So far as we know, without making an exhaustive search of literature or herbaria, these are its only known stations.

Dr. Rusby remembered clearly the details of the location where he found the plant. With his directions in mind, we visited the banks of the Beaverkill river on August 12 and 13, 1929 and succeeded in locating possibly a hundred plants, ranging in height from a few inches to four feet, and in condition from young seedlings to blooming or fruiting adults. The season of bloom was in general past, and the few flowers remaining were mostly on lower lateral branches. Only a small fraction of the flowers were producing seed. It is quite possible that the season was a difficult one for the plants. Floods in 1928 had raised the river to unprecedented heights and probably washed out many of the rhizomes, while the exceptional drought of 1929 was certainly not favorable to them. They were also extraordinarily difficult to find, chiefly because of the lack of flowers. We know that we passed slowly through the best colony of them three times before we saw any of them, and then located at least fifty within a few feet of each other. It is gratifying to know that they are producing viable seeds and reproducing; certainly more than half of the plants were healthy juveniles which had not yet bloomed.

The Beaverkill river, a clear rushing stream, flows here through a narrow valley with a small strip of alluvial deposits on one or both sides. This flood-plain is by no means flat, but is frequently diversified by narrow ridges of almost pure sand, merely stained black by humus, rising one to three feet above the general level and quite variable in length. These ridges usually lie nearer the river than the bluffs, and are separated from the bluffs by a depression which sometimes approaches a swamp in character and almost always shows an approach to

hydrophytic conditions in the abundance of *Chelone glabra* and *Eupatorium perfoliatum*. The ridges lack these species and are distinctly mesophytic in character. All parts of the valley are well shaded by *Acer saccharum*, *Acer spicatum*, and other trees and shrubs. *Aconitum noveboracense* lives, so far as we observed, only on the ridges, which it shares with a dense growth of *Rubus odoratus*, *Monarda didyma*, *Arisaema triphyllum*, *Onoclea sensibilis*, *Osmorhiza longistylis*, *Solidago flexicaulis*, and unidentified species of *Hydrophyllum* and *Thalictrum*. Blooming plants of the aconite rise approximately to the general level of these herbs. Beneath them, and consequently in still denser shade and subject to still greater competition for space, the seedling aconites are mingled with *Mitella diphylla*, *Viola scabriuscula*, and *Fragaria virginiana*.

It is probable that search over other parts of the valley, especially in the blooming season will reveal numerous other plants of this rare species, which, however, shows no indication of being in danger of extinction.

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